



U S Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Ave , S E
Washington DC 20590

NOV 30 2007

VIA CERTIFIED MAIL AND FACSIMILE TO: (713) 989-1186

Mr. Jeryl Mohn
Senior Vice President, Operations and Engineering
Panhandle Eastern Pipe Line Company, LP
5444 Westheimer Road
Houston, TX 77056-6306

Re: CPF No. 3-2007-1016H

Dear Mr. Mohn:

Enclosed is a Corrective Action Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It requires you to take certain corrective actions on the Panhandle Eastern Pipe Line System Line 400. Service is being made by certified mail and facsimile. Your receipt of this Corrective Action Order constitutes service of that document under 49 C.F.R. § 190.5. The terms and conditions of this Corrective Action Order are effective upon receipt.

Sincerely,

James Reynolds
Pipeline Compliance Registry
Office of Pipeline Safety

Enclosures

cc: Ivan Huntoon, Director, Central Region, PHMSA

**DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

In the Matter of

**Panhandle Eastern
Pipe Line Company,**

Respondent

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) **CPF No. 3-2007-1016H**
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CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Panhandle Eastern Pipe Line Company, LP (“Respondent”) to take necessary corrective action to protect the public, property, and the environment from potential hazards associated with a failure involving the Panhandle Eastern Pipe Line (PEPL) system.

On November 21, 2007, a failure occurred on PEPL’s Line 400 near Haven, Kansas resulting in the release of natural gas. The cause of the failure has not yet been determined. Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (“PHMSA”) has initiated an investigation of the incident.

Preliminary Findings

- At approximately 3:08 p.m. CST on November 21, 2007, Respondent’s Line 400 failed near the town of Haven, Kansas (Reno County). The incident was reported to the National Response Center (NRC Report No. 855247).
- The incident occurred at Mile Post (“MP”) 3.1. The failure resulted in the release of an undetermined amount of gas which ignited producing a large fireball. The Haven Fire Department, Kansas State Police, and Reno County Sheriff responded to the scene and nearby county roads were closed to isolate the area.
- Following the failure, Respondent’s personnel initiated an emergency shutdown of the line. Respondent’s personnel then closed the block valve at the Haven Compressor Station (MP 0.0) upstream of the failure and the downstream block valve at 2 Gate (MP 18.2).

- The pipeline remains out of service. Respondent has excavated and removed the section of pipe containing the failure origin and transported it to a metallurgist for failure analysis.
- The cause of the failure has not yet been determined. A preliminary visual examination indicates the failure initiated in the longitudinal seam of the pipe at the 11:00 position. Personnel also observed evidence of selective seam or crevice-type corrosion on the exterior of the pipe in the area of the failed seam. The rupture was approximately 60 feet in length and propagated the length of the seam to the east crossing the girth weld and propagating an additional 21 feet and approximately 15 feet to the west where it left the seam and ultimately arrested in the body of the pipe.
- The pipeline segment containing the failed pipe section was installed in 1962 and is composed of 30-inch nominal diameter, 0.312-inch wall thickness, Grade X60, electric flash-welded (EFW) pipe manufactured by A.O. Smith. It has a coal tar coating and is cathodically protected with impressed current. The segment extends approximately 67 miles to PEPL's 8 Gate and crosses the Arkansas River and several State highways.
- The established maximum allowable operating pressure (MAOP) of the segment on which the failure occurred is 900 pounds per square inch gauge ("psig"). The actual operating pressure at the time of the accident was 897 psig.
- Respondent experienced similar failures on this line segment in 1996 at MP 6.0 and in 2000 at MP 6.1 approximately 3 miles downstream from the November 21, 2007 failure. Both of these incidents were determined to have been longitudinal seam failures caused by selective seam corrosion. The line segment was subject to a Corrective Action Order following the 2000 failure (CPF 3-2001-1001H). The investigations of the 1996 and 2000 failures noted the high ground water level and soil resistivity in the sandy soil where the line segment is located and found evidence of coating disbondment.

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 of Title 49, United States Code, provides for the issuance of a Corrective Action Order, after reasonable notice and the opportunity for a hearing, requiring corrective action, which may include the suspended or restricted use of a pipeline facility, physical inspection, testing, repair, replacement, or other action, as appropriate. The basis for making the determination that a pipeline facility is hazardous, requiring corrective action, is set forth both in the above-referenced statute and 49 C.F.R. § 190.233, a copy of which is enclosed.

Section 60112 of Title 49, and the regulations promulgated thereunder, provide for the issuance of a Corrective Action Order without prior opportunity for notice and hearing upon a finding that failure to issue the Order expeditiously will likely result in serious harm to life, property, or the environment. In such cases, an opportunity for a hearing will be provided as soon as practicable after the issuance of the Order.

After evaluating the foregoing preliminary findings of fact, I find that the continued operation of the Haven Station to 8 Gate segment of PEPL's Line 400 without corrective measures would be hazardous to life, property, and the environment. Additionally, after considering the similarity and proximity between the 1996, 2000, and 2007 failures on the same line, the soil conditions in the failure locations, the experience with coating disbondment and external corrosion, the age of the pipe, the proximity of the pipe to public roadways, the hazardous nature of the product transported, the pressure required for transporting such product, and the ongoing investigation to determine the cause of the failure, I find that a failure to expeditiously issue this Order requiring immediate corrective action would likely result in serious harm to life, property, or the environment.

Accordingly, this Corrective Action Order mandating immediate corrective action is issued without prior notice and opportunity for a hearing. The terms and conditions of this Order are effective upon receipt.

Within 10 days of receipt of this Order, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, delivered personally, by mail or by facsimile at (202) 366-4566. Any requested hearing will be held in Kansas City, Missouri or Washington, D.C. on a date that is mutually convenient to PHMSA and Respondent.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. In that event, Respondent will be notified of any additional measures required and amendment of this Order will be considered. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

Required Corrective Action

Pursuant to 49 U.S.C. § 60112, I hereby order Panhandle Eastern Pipeline Company, LP to immediately take the following corrective actions with respect to Line 400:

1. Prior to resuming operation of the Haven Station to 2 Gate line section, develop and submit a written re-start plan for prior approval of the Director, Central Region, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, 901 Locust Street, Suite 462, Kansas City, Missouri 64106-2641. The plan must include:
 - (A) A short-duration hydrostatic test of the Haven Station to 2 Gate line section to a minimum pressure of 100% of SMYS or 1.39 x MAOP followed by a pressure test meeting the requirements of 49 C.F.R. Part 192, Subpart J following installation of the new pipe joint. Provide the Regional Director with the date and time of the test which PHMSA may elect to witness. Conduct the hydrostatic testing as appropriate to the condition(s) causing the November 21, 2007 failure, including metallurgical analysis of any failures that occur during the testing; and

- (B) Start-up procedures must provide for sufficient pressure monitoring, leak patrolling, and surveillance to ensure that no leaks are present when operation of the line is resumed. The procedures must also provide for advance communication with local emergency response officials.

Once this hydrostatic test has been successfully completed, obtain written approval prior to resuming operation of the pipeline from the Regional Director.

2. Once the pipeline is re-started in accordance with Item 1, the operating pressure on the Haven Station to 2 Gate line section is not to exceed 80 percent of the actual operating pressure in effect immediately prior to the November 21, 2007 failure. Specifically, the pressure is not to exceed 720 psig at the Haven Station discharge. This pressure restriction will remain in effect until written approval to increase the pressure or return the pipeline to its pre-failure operating pressure is obtained from the Regional Director pursuant to Item 11.
3. Within 30 days of receipt of this Order, complete mechanical and metallurgical testing and failure analysis of the failed pipe, including analysis of soil samples and foreign materials. The testing and analysis shall be completed as follows:
 - (A) Document the chain-of-custody when handling and transporting the failed pipe section and other evidence from the failure site;
 - (B) Utilize the mechanical and metallurgical testing protocols, including the testing laboratory approved by the Director, Central Region;
 - (C) Prior to commencing the mechanical and metallurgical testing, provide the Regional Director with the scheduled date, time, and location of the testing to allow a PHMSA representative to witness the testing; and
 - (D) Ensure that the testing laboratory distributes all resulting reports, whether draft or final, to the Director at the same time as they are made available to Respondent.
4. Within 45 days of receipt of this order, perform an evaluation of the Haven Station to 2 Gate line section for areas of disbonded coating and inadequate cathodic protection, including but not limited to a close-interval survey with current interrupted or a direct current voltage gradient survey or other comparable type of electrical survey. Make the results of the electrical surveys available to PHMSA.
5. Within 45 days of receipt of this order, run a high-resolution MFL or comparable in-line inspection (ILI) tool on the Haven Station to 8 Gate segment capable of evaluating: (1) anomalies associated with the longitudinal pipe seam; (2) indications located on the top half of the pipe; and (3) minor surface corrosion that may be indicators of selective seam corrosion. Provide a detailed description of the criteria used to evaluate the ILI data and

the criteria used to excavate and evaluate anomalies. Make the results of the ILI available to PHMSA.

6. Within 60 days of receipt of this Order, develop and submit a written remedial work plan to the Regional Director for prior approval. The work plan must fully address all known or suspected factors that caused or contributed to the failure and must include.
 - (A) The integration of the information developed from the actions required by Items 1, 3, 4 and 5 with relevant pipeline system information, including: previous failure investigations, leak history, repair records, corrosion control/cathodic protection records, in-line inspections, hydrostatic testing, changes in pressure cycling, and other relevant operating data for the purpose of performing a comprehensive analysis of the available information associated with the factors that caused or contributed to the failure. The analysis of the in-line inspection data must include overlaying the results from previous data collected;
 - (B) The performance of additional field testing, inspections, and evaluations to determine whether and to what extent the conditions associated with the failure, or any other integrity threatening conditions, are present along the remainder of the Haven Station to 8 Gate segment as appropriate. Include a detailed description of the criteria to be used for the evaluation and prioritization of any integrity threats/anomalies that are identified. Make the results of the inspections, field excavations, evaluations, and monitoring available to PHMSA or its representative;
 - (C) The performance of repairs, pipe replacement or other corrective measures that fully remediate the condition(s) associated with the failure everywhere along the Haven Station to 8 Gate segment where such conditions, or any other integrity-threatening conditions, are identified through the evaluation process. Include a detailed description of the repair criteria and method(s) to be used in undertaking any repairs or other remedial actions;
 - (D) Provisions for continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the Haven Station to 8 Gate segment considering the results of the analyses, inspections, and corrective measures undertaken pursuant to this Order; and
 - (E) A proposed schedule for completion of the actions required by paragraphs (A) through (D) of this Item.
7. The work plan becomes incorporated into this Order and shall be revised as necessary to incorporate new information obtained during the failure investigation and remedial activities undertaken pursuant to this Order. Submit any such plan revisions to the Regional Director for prior approval. The Regional Director may approve plan elements incrementally.

8. Implement the work plan as it is approved, including any revisions to the plan.
9. Submit quarterly reports to the Regional Director that: (1) include available data and results of the testing and evaluations required by this Order; and (2) describe the progress of the repairs or other remedial actions being undertaken. The first quarterly report shall be due March 1, 2008.
10. Maintain documentation of the costs associated with implementation of this Corrective Action Order. Include in each quarterly report submitted pursuant to Item 9, the to-date total costs associated with: (1) testing, evaluations and information analysis; (2) revisions of procedures and additional monitoring and inspections; and (3) physical changes to pipeline infrastructure, including repairs, replacements and other modifications.
11. The Regional Director may allow the removal or modification of the pressure restriction set forth in Item 2 upon a written request from Respondent demonstrating that increasing the pressure or returning the line to its pre-failure operating pressure is justified based on a reliable engineering analysis showing that the pressure increase is safe considering all known defects, anomalies and operating parameters of the pipeline.

With respect to each submission that under this Order requires the approval of the Regional Director, the Regional Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Regional Director, Respondent shall proceed to take all action required by the submission as approved or modified by the Regional Director. In the event that the Regional Director disapproves all or any portion of the submission, Respondent shall correct all deficiencies within the time specified by the Regional Director, and resubmit it for approval.

The Regional Director may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.

The actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Part 192, under any other order issued to Respondent under authority of 49 U.S.C. § 60101 *et seq* , or under any other provision of Federal or State law.

Respondent may appeal any decision of the Regional Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

Failure to comply with this Order may result in the assessment of civil penalties and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

The terms and conditions of this Corrective Action Order are effective upon receipt.



Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

NOV 30 2007

Date Issued